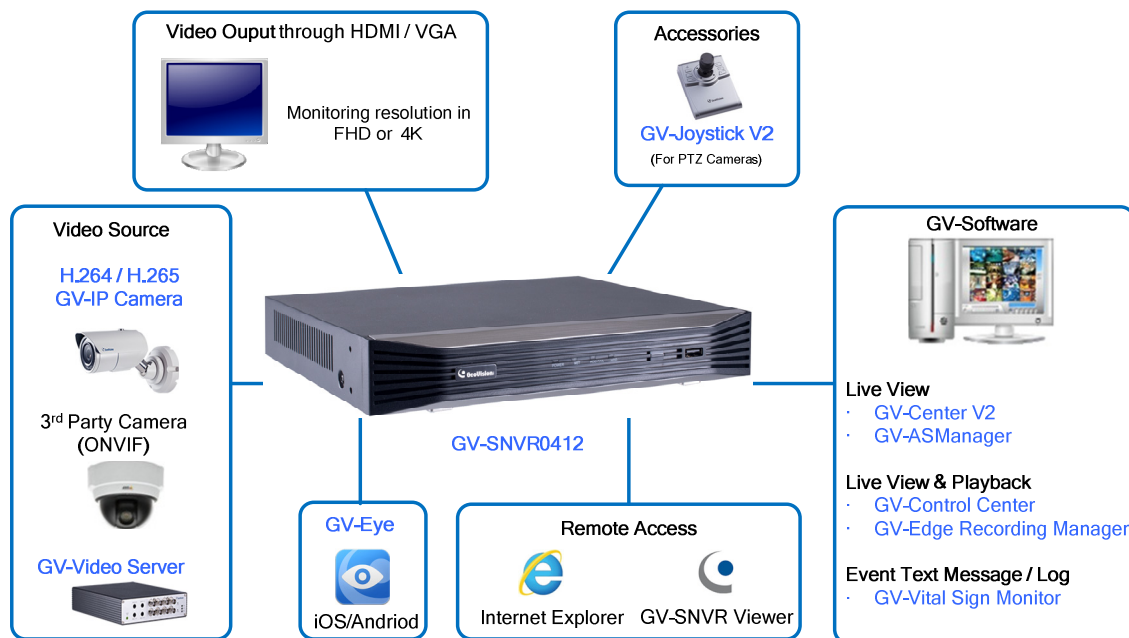# GV-SNVR0412

Introduction

The GV-SNVR0412 is an H.264/H.265 Linux-embedded Standalone Network Video Recorder which records video files directly to the internal hard drive, supporting up to 4 channels of GV-IP devices for network surveillance. GV-SNVR0412 has 4 built-in PoE+ (IEEE 802.3at) ports, functioning to carry network and power to the connected IP devices. Featuring up to 4K resolution video output, GV-SNVR0412 eliminates the need of a separate PC to view and play back videos. Its USB ports allow you to insert USB flash drive to import or export system settings, update firmware, save snapshot files as well as back up video in AVI format.

Features

- 4-Channel video recording
- Up to 3840 x 2160 resolution for each channel*
- Dual stream support
- 4-Port PoE+ (IEEE 802.3at) for camera connection
- 4K (HDMI) / 1080P (HDMI/VGA) video output
- 2-way Audio
- 1 SATA HDD drawer (3.5") for up to 10 TB storage
- Automatic search and setup of IP devices
- Support for third-party IP devices through ONVIF and RTSP protocol
- Continuous, motion, scheduled and alarm-triggered recording
- Timeline playback
- Multi-channel playback

- Display of HDD status and system temperature
- DST (Daylight Saving Time) support
- NTP (Network Time Protocol) support
- GeoVision DDNS server support
- E-mail notification for recording error and password retrieval
- Recording export
- Remote live view through Web browser
- Fisheye dewarping (up to 2176 x 2048 for 1 channel at once)
- Support for GV-Video Server through RTSP protocol
- PTZ control using GV-Joystick or on-screen panel
- Smart device access (iOS and Android)
- Support for 14 languages

*The resolutions of Main Stream and Sub Stream both must meet the requirements noted under Specifications.

Overview

Front Panel

Back Panel

Specifications

Hardware		
System		
OS		Embedded Linux
No. of Drive Bay		1 (3.5" HDD) up to 10 TB
Power Source		Input: AC 100 ~ 240 V, 50 ~ 60 Hz Output: DC 48 V, 1.35 A, Max. 65 W PoE: Max. 54 W
Connectors	Megabit Ethernet	1 port for WAN, RJ-45 10/100 Mbps, 4 ports for LAN, RJ-45 10/100 Mbps, PoE+ (IEEE 802.3at)
	Video Output	4K (HDMI) / 1080p (HDMI / VGA)
	Audio	1-Ch, RCA (2.0 Vp-p, 1 k Ω)
	USB 2.0	Front: USB 2.0 Port x 1; Rear: USB 2.0 Port x 2
	I/O	4 Inputs, 1 Output
LED Indicator	NVR	4 LEDs: Power, Network, HDD Fail, HDD Activity
	PoE	4 LEDs for each port
Operating Temperature		0 °C ~ 50 °C (32 °F ~ 122 °F)
Humidity		0% ~ 90% RH (non-condensing)
Dimensions (L x W x H)		260 x 240 x 44 mm (10.24 x 9.45 x 1.73")
Net Weight		1.12 kg (2.47 lb)
Regulatory		FCC, CE, BSMI, LVD, RoHS compliant

Software		
Video and Audio		
Video Compression		H.264, H.265
Video Stream		Dual streams from H.264, H265
Video Output		4K / 1080p (HDMI / VGA)
Display Division		1 / 4
Audio Compression		G.711
Audio Support		Yes
Two-Way Audio		Yes
Supported Video Resolution	**Main Stream**	**Sub Stream**
4:3	2592 x 1944	1024 x 768, 960 x 720, 640 x 480, 320 x 240
	2560 x 2048	
	2560 x 1920	
	2048 x 1536	
	2048 x 1520	
	1600 x 1200	
	1280 x 960	
	640 x 480	640 x 480, 320 x 240
	320 x 240	320 x 240

16 : 9 (Default)	3840 x 2160	1280 x 720, 640 x 360, 448 x 252
	2592 x 1520	
	2560 x 1440	
	2304 x 1296	
	1920 x 1080	
	1280 x 720	
	640 x 360	640 x 360, 448 x 252
	448 x 252	448 x 252
5:4	1280 x 1024	1280 x 1024, 640 x 512, 320 x 256
	640 x 512	640 x 512, 320 x 256
	320 x 256	320 x 256
20 : 19 (Fisheye Camera Only)	2176 x 2048	640 x 608
	2048 x 1944	
	1792 x 1696	
	1440 x 1376	
	1280 x 1200	

Operation	
Recording Bandwidth	Max. 24 Mbps for 4 channels
Recording Mode	Round the clock / Motion Detection / Schedule Recording / Alarm-triggered Recording
Pre Recording	1 ~ 10 sec.
Post Recording	30 sec.
Instant Playback	3 min.
Backup Type	USB flash drive of FAT32 format
Management	
Language	Czech / English / Finnish / French / German / Hungarian / Italian / Japanese / Portuguese / Russian / Slovakian / Slovenian / Spanish / Traditional Chinese
Firmware upgrade	Upgrade through OSD or GV-IP Device Utility
Network	
Network Type	LAN, WAN, Internet
Protocol	DHCP, DynDNS, HTTP, NTP, ONVIF, RTSP, TCP, UDP
System Monitoring and Recovery	
Power Restoration	Automatic restart after power outage
Monitoring	Software Watchdog
Remote Viewing	
Live View	Max. 10 channels connection
Monitoring Environment	IE browser, SNVR Viewer for non-IE browsers, Mobile app
Smart Device Access	GV-Eye for iOS and Android
Access from IE browser	Live View, Image Snapshot, Picture in Picture, Picture and Picture, Digital PTZ

Note:
1. GV-SNVR0412 only supports PoE+ (IEEE 802.3at) for camera connection. If your camera requires power supply above 30W, be sure to power your camera with the compatible PoE switch or its power adapter.
2. For backup efficiency, it is recommended to use external hard drive(s) to back up your recordings.
3. Product design and specifications are subject to change without notice.

Requirements

Supported GV-IP Cameras

- GV-Target Series IP Camera (Firmware V1.0 or later)
- GV-SD220/220-S (Firmware V1.02 or later)
- GV-UNFE2503 / UNP2500 (Firmware V2.11 or later)
- All other GV-IP Cameras EXCEPT for the models below:
    - GV-BX110
    - GV-BL110
    - GV-FE520 / 521
    - GV-FER12203 / 12700
    - GV-MFD110
    - GV-PT110
    - GV-PTZ010D
    - GV-SD010

Note:
1. For supported IP cameras, the resolutions of Main Stream and Sub Stream both must meet the requirements noted under Specifications.
2. GV-SNVR only supports recording frame rates of up to 30 fps.
3. GV-SNVR0412 only supports recording bandwidths of up to 24 Mbps.
4. GV-SNVR0412 also supports EVS-ABD1300 / ABL1300 / ADR1300 and UVS-ABD1300 / ABL1300 / ADR1300.

Supported GeoVision Application

- GV-Edge Recording Manager (Windows Version V1.4.0.3 or later)
- GV-Control Center (V3.6.0 or later)
- GV-Center V2 (V17.1 or later)
- GV-Vital Sign Monitor (V17.1 or later)
- GV-Eye (for iOS / Android V2.7.2 or later)
- GV-Cloud Center (V1.0 or later)

Recommended Hard Disks

GV-SNVR00412 supports 1 SATA HDD (3.5") for up to 10 TB of storage capacity. For system efficiency, it is recommended to use enterprise-level hard disk drives instead of desktop-level or green HDD. For tested hard disk drives, see Appendix in GV-SNVR User's Manual.

Note: GV-SNVR does not support the 2.5" SATA HDD.

Supported Web Browsers

- Internet Explorer 10 or later
- Google Chrome
- Mozilla Firefox
- Safari
- Microsoft Edge

Packing List

1. GV-SNVR0412
2. AC power cord
3. AC/DC adapter (DC 48 V, 1.35 A, 65 W)
4. SATA cable
5. HDD power cable
6. Screw x 4 (for HDD)
7. Foam foot
8. USB mouse
9. Rack mount kit (2 L-shaped brackets + 4 screws)
10. Download Guide
11. Warranty card

Accessories

GV-POE Switch	GV-POE Switch is designed to provide power along with network connection for IP devices. It is available in various models with different numbers and types of ports.
GV-Joystick V2	GV-Joystick V2 facilitates PTZ camera controls. It can be plugged into the GV-SNVR for independent use to empower the operation of PTZ cameras.